

ABSTRACT

A photomultiplier tube includes: a cathode 3, a plurality of dynodes 107, and an electron lens forming electrode 115. The cathode 3 emits electrons in response to incident light. The plurality of dynodes 107 multiplies electrons emitted from the cathode 3. The electron lens forming electrode 115 is disposed in a prescribed position in relation to an edge of a first dynode 107a positioned in a first stage from the cathode 3 and an edge of a second dynode 107b positioned in a second stage from the cathode 3, and smoothes an equipotential surface in a space between the first dynode 107a and the second dynode 107b along a longitudinal direction of the first dynode. This structure improves time resolution in response to incident light.